United States
Environmental Protection
Agency
Region 10

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EPA
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HW 074

EPA

August 22, 1992

Proposed Plan and Abbreviated Remedial Investigation For Yakima Pesticide Lab Yakima, Washington

PUBLIC COMMENT PERIOD:
August 24, 1992 - September 22, 1992

MEETING FOR PUBLIC COMMENT
September 10, 1992
7:00 P.M.
at
Yakima Valley Regional Library
102 N. 3rd Street
(adjacent to the Yakima Mall)
Yakima, Washington

INTRODUCTION

This Proposed Plan outlines the U.S. Environmental Protection Agency's (EPA) proposal for No Further Action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) for the Yakima Pesticide Lab site, located in Yakima, Yakima County, Washington. Cleanup activities at this site have been conducted under the authority of the Resource Conservation and Recovery Act (RCRA).

This document is issued by EPA, with the concurrence of the Washington State Department of Ecology (Ecology). The purpose of the Proposed Plan is to provide information leading to the No Further Action proposal and to request public participation in the decision-making process. EPA, in consultation with Ecology, will

make the final decision only after the public comment period has ended, and all comments have been reviewed and considered.

EPA is issuing this Proposed Plan as part of its public participation responsibilities under section 117(a) of CERCLA (also known as Superfund).

The Yakima Pesticide Lab site is a National Priorities List (NPL) site which was the subject of remedial activities pursuant to RCRA. Evaluations of the nature and extent of contamination at the site were conducted over a period of several years from 1988 to 1992. A closure plan describing, in detail, remedial activities required to be performed at the site, was approved on January 30, 1990. After completion of cleanup activities, a certificate of completion and closure report were prepared.

This Proposed Plan summarizes information that can be found in greater detail in the RCRA Facility Assessment, Closure Certification Report, Quarterly Groundwater Monitoring Report and the Final Report. These documents are part of the Administrative Record which contain the information used to evaluate the conditions at the Yakima site leading to the No Further Action proposal. The Administrative Record should be reviewed to gain a more comprehensive understanding of the site and remedial activities conducted there. **The Administrative Record file is available for review at the following locations:**

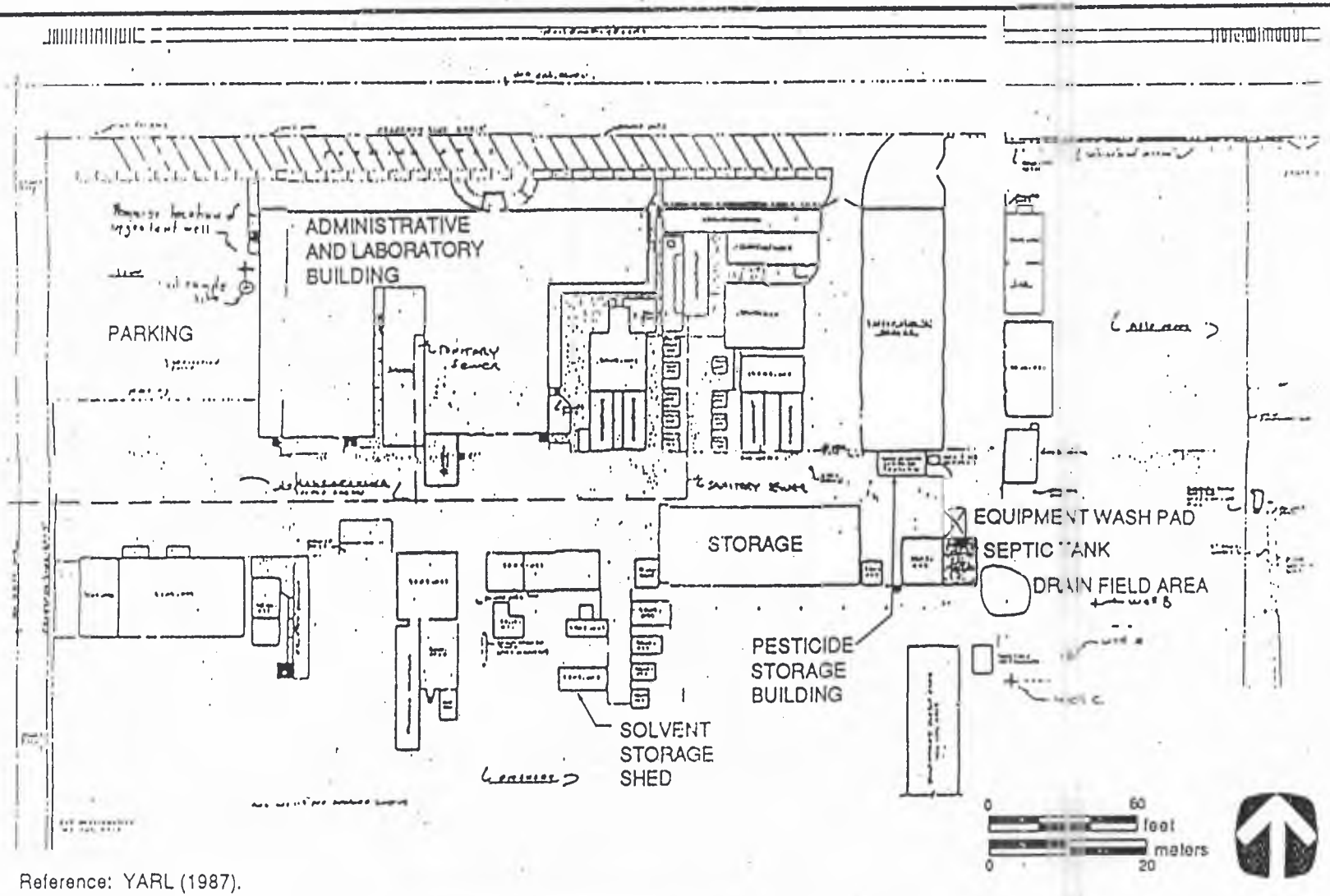
Washington Department of Ecology, Central Regional Office, attn: Michelle Slater, 106 South 6th Avenue, Yakima, Washington 98902.

United States Environmental Protection Agency, Region 10 Hazardous Waste Division - Records Center, 1200 6th Avenue, Seattle, Washington 98101.

SITE DESCRIPTION

The subject of this Proposed Plan is a National Priorities List (NPL) site identified as the Pesticide Lab (Yakima) site. This site is located within the Yakima Agricultural Research Laboratory (YARL) in Yakima, Yakima County, Washington. The Research Laboratory consists of numerous office and laboratory research buildings, warehouses, storage sheds, maintenance buildings and greenhouse/hothouse buildings occupying approximately 15% of an approximately 10 acre parcel in Yakima (see Figure 1). The remaining acreage is used for cultivation of row crops and fruit trees. YARL is situated in a residential area within one-half mile of three schools, two hospitals and three shopping centers. The designated NPL site consists of a septic tank, disposal pipe, washdown pad and drainfield system used for the disposal of dilute waste pesticide compounds used at the YARL.

The primary activity at the YARL involves the development of insect control technologies that benefit fruit and vegetable agriculture in the Pacific Northwest. Records indicate that the area was sprayed with various pesticide compounds including persistent chlorinated hydrocarbon pesticides such as DDT, dieldrin, lindane. Workers at the station used a modified septic and drainfield system to discharge dilute waste pesticide compounds. At the time, concerns that pesticides



Reference: YARL (1987).

Figure 1. YARL site map.

and solvents had leached into the uppermost, shallow, drinking-water aquifer were identified because of the presence of highly permeable sands and gravels.

SITE REGULATORY HISTORY

YARL submitted a RCRA Part A permit application in September 1980 and received interim status. A preliminary assessment and site investigation (PA/SI) was conducted in June 1982. Field work for the PA/SI was limited to shallow soil sampling and a failed attempt to drill to groundwater. The PA/SI concluded that soil was contaminated due to discharges from the septic system and that groundwater contamination was likely. Based on the results of the PA/SI, the site was proposed for the NPL in December 1982 and finalized on September 8, 1983 (48 FR 40658).

CONTAMINANTS AND POTENTIAL EXPOSURE PATHWAYS OF CONCERN

The final RCRA Facility Assessment (RFA) for the site was completed on June 2, 1988. The RFA includes a preliminary characterization of the conditions of the site (including information on releases at the site), identifies additional work needed to fully characterize the site, and describes the results from a visual inspection. Preliminary on-site sampling identified pesticides in septic tank water and the surrounding subsurface soil. Available data was inadequate to assess the quality of the groundwater. The report concluded that the extent of groundwater and soil contamination could not be assessed without more information.

Wastes generated at the site consist of a wide variety of pesticide mixtures, rinsates from the cleaning of sprayers and other equipment, and solvents. Approximately 5,000 gallons of rinsate from equipment cleaning operations and less than 250 gallons of residual pesticide solutions were discharged into the system annually for about 20 years (from 1965 to 1985).

Prior to remediation, the preliminary environmental pathways of concern related to the hazardous waste disposal system were groundwater, on-site soils and possibly surface water.

CHARACTERIZATION OF RISK

In 1988 YARL, removed the drainfield, sampled soil within and outside the drainfield excavated area, and sampled and gathered additional groundwater monitoring and sampling information from four monitoring wells. Sampling was conducted for a lengthy list of primary and indicator parameters to determine ground water quality and to monitor for the presence of the compounds believed to have been discharged through the septic tank/drainfield system.

The subsequent study that was developed concluded that the ground water quality was generally excellent and that the likelihood for ground water contamination was very low at the site. The study detected a variety of hazardous pesticides and carrier solvents in the tank sludge and drainfield. Based on these data, EPA and Ecology

decided that the site was subject to the closure requirements for hazardous waste treatment, storage, and disposal (TSD) facilities, under RCRA.

REMEDIAL ACTION SELECTED AND IMPLEMENTED UNDER RCRA

An initial closure plan for the septic tank and drainfield, including a monitoring plan for sampling and analyzing groundwater and soil, was submitted by YARL in January 1985. A final revised closure plan was submitted on September 12, 1989 for approval after four groundwater monitoring wells were installed in April 1988 at the site. The September 12, 1989 final draft Closure Plan was issued for public comment in December 1989. No comments from the public were received. The Closure Plan was approved on January 30, 1990. As required by the approved Closure Plan, three additional wells were drilled and completed by July 1990.

The principal elements of the Closure Plan included removal of the waste disposal structures (septic tank and washdown pad), additional background soil sampling, confirmational soil sampling around the removed structures, installation of ground water monitoring wells and one year of sampling. Calculation of cleanup levels for this site were based on EPA's proposed RCRA Subpart S standards as described in 55 FR 30798, July 27, 1990. Where cleanup levels for specific contaminants were not identified, consistent with the proposed Subpart S, the Agency calculated cleanup levels based on a cumulative noncarcinogenic risk estimate of less than 1.0 based on daily intake and a lifetime incremental cancer risk of less than one in a million. The primary exposure route of concern, in the absence of groundwater contamination, was through soil. Since the site is surrounded by residential areas, an exposure scenario that assumed soil consumption by children was used to develop cleanup levels.

Closure activities focused on removing the potential sources of contamination through the removal and disposal of septic tank contents, excavation and removal of the septic tank itself, and washdown pad removal. Approximately 40 cubic yards of contaminated soil containing pesticides above the cleanup levels were removed from the former tank/pad area and disposed of at a permitted hazardous waste TSD facility. Analysis of soil samples has not detected significant concentrations of PCBs, volatile organics, semi-volatile organics and metals. Organophosphorus pesticides, identified in the tank contents, were not present in significant quantities in the site soils. Final soil monitoring indicated that dieldrin and DDT concentrations were below cleanup levels, endrin and endosulfan were several orders of magnitude below cleanup levels and other organochlorine pesticides were not detected.

Quarterly monitoring (45 validated samples in five quarters) indicate groundwater concentrations of DDT and dieldrin and other regulated pesticides did not exceed health-based criteria or cleanup levels. No organic compounds were detected. Based on the results of the groundwater monitoring, EPA and Ecology believe that the groundwater associated with this site does not pose a significant risk to public health and the environment. Similarly, EPA and Ecology do not believe that surface water is being contaminated via groundwater contamination.

SUMMARY OF POST-REMEDIAL SITE RISKS

Based on the removal of contaminated equipment and excavation of contaminated soil, hazardous materials were removed from the site allowing for unlimited use and unrestricted exposure within the site. Confirmational monitoring of soil and groundwater demonstrate that cleanup levels specified in the approved closure plan have been met. All exposure pathways of concern have been addressed. Operation and maintenance activities are not required at the site. EPA does not intend to conduct "five-year" reviews under CERCLA at this site.

No environmental risk has been identified for this site. For example, no critical habitats or endangered species or habitats of endangered species have been identified for this site.

The sampling and analysis section of the Closure Plan was reviewed and approved by the EPA and Ecology. The plan was suitable to characterize the potential contamination and to determine contaminant removal from the site. Appropriate quality control measures and laboratory quality control protocols were implemented for the sample collection and analysis activities in accordance with the approved Closure Plan (this analysis is currently being completed for 3 remaining soil samples). Sample analyses were conducted according to methods contained in the EPA document "Test Methods for Evaluating, Solid Wastes, Physical/Chemical Methods (SW-846)."

In addition, the majority of the analytical data (100% of the groundwater monitoring data and at least 50% of the soil sampling data) were reviewed and validated by EPA, using procedures outlined in the EPA Functional Guidelines for Data Validation of Organic and Inorganic Data. Overall, the data have been determined to be of acceptable (known and documented) quality to support a No Further Action finding at this site pursuant to CERCLA. YARL is in the process of conducting final quality control measures, according to EPA methodology, of the remaining soil sampling data. Results of that data will be added to the Administrative Record when available.

PROPOSAL FOR NO FURTHER ACTION

EPA and Ecology believe that the site is protective of public health and the environment for all pathways of exposure and No Further Action is needed.

EPA's and Ecology's proposal for No Further Action is based on the results of the post-RCRA removal, soil and groundwater samplings, attainment of stringent cleanup levels, and non-detection of most substances analyzed for in soil and groundwater.

If new information becomes available during the comment period, such as soil sampling data that is not adequate to satisfy EPA quality control measures, EPA and Ecology will reconsider the No Further Action proposal. EPA and Ecology decided to proceed with this proposal because the vast majority of the soil sampling data and all of the groundwater monitoring data is of acceptable and known quality and indicates that contaminants, if present, are not detectable.

HIGHLIGHTS OF COMMUNITY PARTICIPATION

The final draft closure plan dated September 12, 1989 is the functional RCRA equivalent of a proposed plan for cleanup under CERCLA. RCRA community involvement requirements were observed when the final draft closure plan was issued for public comment in December 1989. No comments were received. The closure plan was approved on January 30, 1990.

HOW YOU CAN PARTICIPATE

You are invited to comment on this proposal for No Further Action and the documents supporting this proposal. Comments should include all reasonable available references, factual grounds and supporting material. **The public comment period is from August 24, 1992 to September 22, 1992. Written comments may be submitted at any time during the comment period to:**

Lynda Priddy
U.S. EPA
1200 Sixth Ave., HW-113
Seattle, WA 98101

A public meeting will be held to discuss this Proposed Plan and to hear public comments:

September 10, 1992
7:00 p.m.

Yakima Valley Regional Library
102 N. 3rd Street (adjacent to the Yakima Mall)
Yakima, WA 98901

At the end of the comment period, the EPA will prepare a summary responding to public comments. This summary is called a Responsiveness Summary and is included as part of the final plan, called the Record of Decision (ROD). The final plan is selected only after considering public comments. After the ROD is signed, a fact sheet presenting the final decision will be mailed to all interested parties.

A copy of the ROD will be placed in the Administrative Record in the local information repositories listed above.

GLOSSARY

Administrative Record - Documents including correspondence, public comments, Record of Decision, technical reports, and others upon which the Agency base their remedial selection.

Cleanup Level - The contaminants in on-site soils are reduced to a concentration in a removal or remedial action that is determined to be protective of human health and the environment.

Comprehensive Environmental Response, Compensation, and Liability Act, commonly called Superfund - A law that establishes a program to identify sites where hazardous substances have been, or might be, released into the environment and to ensure that they are cleaned up or adequately controlled and monitored.

Groundwater - Underground water that fills pores in soils or openings in rocks to the point of saturation. Unlike surface water, groundwater cannot clean itself by exposure to the sun or filtration. Groundwater is often used as a source of drinking water via municipal or domestic wells.

National Priorities List - EPA's list of waste sites targeted for priority cleanup.

Proposed Plan - Document requesting public comment on a proposed remedial alternative.

Record of Decision - The document that selects the final remedial action to be used to cleanup a site. It contains information about the site, the remedy selection process, and the selected remedy required by the Comprehensive Environmental Response, Compensation, and Liability Act. It also contains the Responsiveness Summary.

Responsiveness Summary - The part of the Record of Decision that summarizes significant comments received from the public and provides the Agencies an opportunity to respond.

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